

ET-9/RP-93-1203 ORDER REVIEWING RESOURCE PLAN, IDENTIFYING AREAS FOR  
IMPROVEMENT, AND REQUIRING PROGRESS REPOR

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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In the Matter of Southern Minnesota Municipal  
Power Agency's 1993 Resource Plan

ISSUE DATE: October 20, 1994

DOCKET NO. ET-9/RP-93-1203

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**PROCEDURAL HISTORY**

**I. Proceedings to Date**

In May 1993, the Minnesota Legislature passed Minn. Stat. § 216B.2422 which, among other things, required certain cooperative and municipal utilities to file integrated resource plans with the Commission.

On November 16, 1993, the Commission issued its ORDER ESTABLISHING FILING SCHEDULE in Docket E-999/RP-93-729. In that Order, the Commission determined, among other things, that Southern Minnesota Municipal Power Agency (SMMPA) was to file its resource plan as soon as it received a comprehensive study of its resource needs, which was being conducted by an engineering consultant.

On November 29, 1993, SMMPA filed its "Report on an Integrated Resource Plan for Southern Minnesota Municipal Power Agency," prepared by R.W. Beck and Associates. The Commission subsequently issued a Notice of Receipt of Filing, Creation of Service List and Relevant Deadlines. The Notice established that the deadline for intervention and initial comments would be March 29, 1994, and response comments would be due May 30, 1994.

On February 4, 1994, the Minnesota Department of Public Service (the Department) filed notice with the Commission of its intent to intervene as of right in this proceeding.

On February 15, 1994, the Izaak Walton League of America filed a petition to intervene this proceeding.

On March 29, 1994, the Department filed its comments on SMMPA's Resource Plan. No party filed response comments.

On September 8, 1994, the Commission met to consider this matter.

**FINDINGS AND CONCLUSIONS**

**II. Background**

The Minnesota legislature has recognized that formally structured integrated resource planning

by utilities is a responsible and reasonable means to promote the utilities' readiness to meet the energy needs of their customers in ways that are least costly and overall beneficial to the public good. Accordingly, the legislature has adopted resource plan requirements for investor owned rate-regulated electric utilities and for other utilities of a certain size. This "other utilities" group consists primarily of the state's larger municipal and cooperative utilities, including SMMPA.<sup>1</sup>

Both groups of utilities (investor owned and the municipal and cooperative utilities of a certain size) are required to file with the Commission periodic resource plans as defined in the statute and in accordance with Commission rules for resource plans.<sup>2</sup>

The Commission has a different oversight role, however, regarding resource plans filed by the two utility groups. As to the resource plans of investor owned rate-regulated electric utilities, the Commission has authority to approve, reject, or modify the plan. For resource plans filed by other utilities, such as SMMPA, the Commission plays an educational and advisory role to the utility regarding the utility's compliance with resource planning requirements. Minn. Stat. § 216B.2422, subd. 2 (1993).

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<sup>1</sup> Chapter 356 of Minnesota Laws 1993 requires resource planning by utilities with the capability of generating 1000,000 kilowatts or more of electric power and serving the needs of 10,000 retail customers in Minnesota.

<sup>2</sup> In its November 16, 1993 ORDER ESTABLISHING FILING SCHEDULE in the generic proceeding E-999/RP-93-729, the Commission found that Minn. Stat. § 216B.2422, subd. 2 (Supp. 1993) requires procedural flexibility and respect for constraints placed on cooperative and municipal utilities by other jurisdictions but does not exempt these utilities from the Commission's substantive legal requirements. Consequently, the Commission found it necessary to grant some of the cooperatives and municipal utilities a variance from the filing deadline requirements of Minn. Rules, Part 7843.0300, subp. 2 to allow them to file on a date other than the July 1 date set in the rule. The Commission stated that barring explicit Commission authorization, plans filed under the new statute should be in substantial compliance with Minnesota regulatory requirements, e.g. Minn. Rules, Parts 7843.0300 and 7843.0400. Order at page 2.

### **III. SMMPA's Engagement in the Resource Planning Process**

SMMPA's responses to information requests were slow in coming and cursory at best. This is the first year that SMMPA and many other non-IOU utilities have been required to file resource plans. SMMPA may have had some confusion over the important role of information requests in the resource planning process.

To clarify, the Commission views the utility's responses to information requests as a means by which a utility may complete its filing. As such, they are essential. In addition, SMMPA's prompt response to information requests is required by Commission rule. Minn. Rules, Part 7843.0300, Subp. 8 states in part:

The parties shall comply with reasonable requests for requests for information by the commission, other parties, and other interested persons. ... Parties shall reply to information requests within ten days of receipt, unless this would place an extreme hardship upon the replying party.

Second, the Agency provided no response comments. While not mandatory, the discipline of preparing response comments is a good way for the utility to assure itself that it has duly considered the points made by Department staff and other interested parties regarding the utility's resource plan.

The integrated resource planning process is designed to benefit utilities and, ultimately, their customers. The Commission strongly encourages the Agency to take advantage of all aspects of this planning opportunity. The Commission will expect more active participation from the Agency in its next integrated resource plan filing.

### **IV. Observations and Comments**

The Commission has reviewed SMMPA's plan and the Department's comments thereon. The Commission, with an eye towards improving SMMPA's next planning so the Agency can realize the full benefit of integrated resource planning, will comment on seven areas.

#### **A. Forecast and Resource Needs**

The Commission agrees with the Department that SMMPA's 1996 resource plan will be much strengthened by submitting a complete section on forecasting in its 1996 resource plan, providing all the elements listed by the Commission in Minn. Rules, Part 7843.0400. While the current filing has been very helpful in describing the Agency's current situation and likely planning options, absence of complete and current forecasting data makes it difficult to make the subtle distinctions between various resource scenarios that could prove ultimately beneficial to the Agency. The comments submitted by the Department and the guidance provided by the Commission in the course of its examination of the current plan should be helpful to the Agency in "fine tuning" the forecast section for the 1996 filing.

## **B. Supply Side**

The Department argued that additional supply-side options should be examined before SMMPA initiates its proposed upgrades in the early 2000's and suggested that SMMPA should examine capacity exchanges, purchased power from customer-owned cogeneration, and purchased power from other members of the Mid-Continent Power Pool (MAPP). The Department's recommendations for further supply-side analysis are reasonable.

In preparing its next resource plan, SMMPA should carefully consider the Department's recommendations. If the Agency chooses not to adopt one or more of the Department's recommendations, the Agency should include an explanation of its decision in the next resource plan filing.

## **C. Demand Side**

The Department recommended that the Agency improve its demand side management (DSM) analysis with the following modifications:

- conduct additional end-use research to obtain a comprehensive understanding of the Agency's DSM potential
- include a market-penetration study and an explanation of assumptions made in conducting the study
- account for externalities when determining whether DSM options are cost-effective
- include the effects of varying levels of achieved DSM on the Agency's resource plan

The Commission finds that the Department has made reasonable recommendations regarding the treatment of DSM in SMMPA's Resource Plan. SMMPA should carefully consider all of the Department's recommendations. If the Agency chooses not to adopt one or more of these recommendations, it should explain its decision in its next resource plan.

In addition, the Commission notes that a critical component of SMMPA's DSM program is the acceptance and adoption of the various parts of the program by SMMPA member utilities. Therefore, SMMPA will benefit by filing, in its next resource plan, a status report concerning member adoption of its DSM program, as well as a detailed description of the efforts provided by the Agency in marketing and assisting with the implementation of these programs.

## **D. Integration of Supply- and Demand-Side Resource Options**

The two-step methodology used by SMMPA does not allow the Agency to evaluate varying increments of both resource options simultaneously. This methodology may lead the utility to consider DSM opportunities only when it has no choice but to construct a generating facility. Under an integrated approach to resource planning, the utility should be able to explore all existing cost-effective options and identify the appropriate mix of DSM and supply-side resources.

The Department suggested that the Agency's approach to determining DSM goals could be enhanced by systematically determining the level of achievable DSM and testing different combinations of demand- and supply-side resources to identify the least-cost expansion plan. The Department asserted that this approach allows for the simultaneous consideration of demand- and supply-side resources, is more objective, and should yield the most appropriate mix

of resources.

The Commission will encourage SMMPA to work with the Department in the Agency's next planning process to develop an iterative approach to determining the appropriate mix of demand- and supply-side resources.

#### **E. Contingency Planning**

Contingency planning is a critical function of resource planning. There are several uncertainties which may affect a utility's resource planning. Contingency planning allows the utility and parties to evaluate the impacts of likely future events. As the Department noted in its comments, there are many areas of uncertainty in long-range planning, including load growth, fuel costs, the availability of existing generating capacity, the attainment of DSM goals, and future environmental and siting regulations.

SMMPA did not perform any contingency analysis in its first resource plan.

The Department made three (3) recommendations for contingency planning. The three contingency recommendations are in the categories of forecasting, supply-side resources and DSM.

The Commission finds that the Department has made reasonable proposals regarding contingency analysis to be conducted by SMMPA for its next resource plan. SMMPA should seriously consider the Department's recommendations. If SMMPA determines not to adopt a recommendation, the Agency should provide a discussion outlining the reasons it was not adopted.

#### **F. Social Costing**

The social cost approach includes both an internal cost estimate to reflect out-of-pocket expenses for items such as a combustion turbine, and an external/environmental cost estimate that reflects costs such as air pollution which are not captured in monetary exchanges. The social cost approach develops an estimate of the most cost-effective resource selection from society's perspective.

SMMPA did not analyze potential resource options using a social cost approach.

The Department recommended that in its next resource plan, SMMPA should be ordered to use a social cost approach when determining the most appropriate resource mix. The Department's comments noted the interim values established by the Commission for specific pollutants and also cited the Commission's March 1, 1994 *Order Establishing Interim Environmental Cost Values* which requires all utilities to include cost estimates of resources options at three levels:

- 1) the direct cost of the resources without external costs;
- 2) the direct cost plus the minimum values in the ranges established by the Commission;
- 3) the direct cost plus the maximum values in the ranges established by the Commission.

The Department recommended that SMMPA incorporate the interim environmental cost values for these three levels of analysis in its 1996 resource plan, if final values have not been established by the Agency's filing date.

Finally, the Department recommended that the Commission order SMMPA to discuss the impact of the Clean Air Act (CAA) on the Agency's generation facilities in its next resource plan. The Department suggested that a discussion of the impact of the CAA and SMMPA's position on the need for the development of an SO<sub>2</sub> allowance trading strategy would provide a more complete picture of the Agency's efforts in the area of environmental regulation.

The Commission agrees with the Department that SMMPA has a responsibility to incorporate externalities into its cost estimate of resource options. It is important that the Commission, parties, and the utility examine the various resource options from a societal perspective. The Agency should incorporate the three levels of analysis in its next resource plan.

SMMPA should also provide a discussion of the impact of the Clean Air Act on SMMPA's generation sources and on the need for the development of an SO<sub>2</sub> allowance trading strategy, as recommended by the Department. The Agency should adopt the Department's recommendation and provide the discussion in its next resource plan. If the Agency chooses not to adopt this recommendation, it should explain its decision in its next resource plan.

## **G. Rate Design**

Rate design is an important planning tool for utilities. Rate design affects end-users' demand for electricity and correspondingly, the need for future capacity.

The Department made several recommendations to improve the Agency's rate design to encourage the efficient consumption of electricity. The Department stated that the three principles of rate design used by SMMPA<sup>3</sup> could be enhanced by including the principle that rates should, whenever administratively feasible, reflect costs, particularly marginal costs. The Department also suggested that SMMPA should encourage its members to adopt similar criteria for the design of end-use rates. By using cost-based rates and by assisting its members in

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<sup>3</sup> The Agency cited three rate-setting principles:

1. Rates are set to collect only actual cash flows plus any capital reserve requirements. No profits are collected.
2. Extra cash generated through the rate structure is returned to members unless clear identification as to their use in reducing rates is made.
3. SMMPA strives to levelize its rates on an on-going basis.

developing cost-based end-user rates, SMMPA's members will reduce their energy and demand bills while at the same time reducing the Agency's total costs.

The Department further recommended that the Agency develop and implement cost-based rate design and assist its members by developing and approving specific retail rate design criteria focusing on cost-causation and sending proper price signals. SMMPA should report on its progress in implementing this approach in its next resource plan.

### *1. Interruptible Rates*

The Department supported SMMPA's initiative to design an interruptible rate and recommended that the Agency report on the details of the rate and its implementation in its next resource plan.

### *2. Time-of-Day Rates (TOD)*

The Agency's general sales tariff has a fixed energy charge and an on-peak demand charge. The Department asserted that SMMPA could improve the price signals it sends its members by developing TOD rates. The Department argued that SMMPA's costs indicate there is potential that TOD rates could encourage a more efficient use of electricity. [For example, SMMPA's average cost of energy from its share of Sherco 3 was nearly 1/4 the cost of energy of its other generating units, yet the Agency charges an average energy rate.] The Department suggested that SMMPA should identify time periods that accurately reflect their costs (For example, peak periods compared to off-peak periods, or periods when energy is provided by Sherco 3 compared to periods when energy is provided by its other generating sources).

The Department recommended that SMMPA assist its members in developing end-use TOD rates. Given the additional cost and complexity in implementing end-user TOD rates, the Agency could assist its members by providing recording meters for use by end-users provided the benefits of shifting load from on-peak to off-peak periods are sufficient to cover the cost of recording meters.

The Department also recommended that SMMPA offer and implement TOD rates to its members and address the administrative feasibility of developing a TOD program for its member's customers in its next resource plan. The Department recommended that the next resource plan include an analysis of the number of potential TOD customers and examine the feasibility of an economically justified program of providing recording meters to its members.

### *3. Seasonal Rates*

The Department noted that SMMPA's highest monthly costs occur in the spring, coincident with a scheduled outage from maintenance on the Sherco 3 generating unit. This outage causes the Agency to purchase more expensive capacity and energy from other sources. The Department suggested that seasonally adjusted rates would send more appropriate price signals to Agency members. Members, in turn, could offer seasonal rates which more accurately reflect cost causation allowing consumers to make more educated consumption decisions.

The Department recommended that SMMPA analyze whether its costs change by season, determine if the most recent year's data reflects the Agency's projected costs, and provide a summary of its analysis including the feasibility and benefits of offering seasonal rates. The Agency should report its findings in its next resource plan.

The Commission finds that the Department's analysis of SMMPA's resource plan has identified an area where significant enhancements can be achieved. SMMPA's members are unlikely to send appropriate price signals to their retail customers if they are not receiving appropriate price signals from the Agency. With the exception of implementing TOD rates for its members, the Commission believes SMMPA should adopt the Department's rate design recommendations.

Regarding the implementation of TOD rates, the Commission believes that, at this time, it is



more important for SMMPA to evaluate the potential for TOD rates than it is to begin offering the rate to its members. In its evaluation, SMMPA should consider the appropriate design of the rates as well as to examine the potential impact of TOD rates on the Agency's future resource needs.

As recommended by the Department, the Commission strongly encourages SMMPA to conduct a thorough analysis of the potential for TOD rates and the appropriate design of such rates, both at the wholesale and retail level. The Agency should provide a detailed discussion of its findings in its next resource plan.

SMMPA should also adopt the Department's rate design recommendations and provide related information as set forth in Ordering Paragraph 8.

Finally, if the Agency declines to adopt any of these recommendations, it should provide an explanation supporting its decision in its next resource plan.

## **V. Conclusion**

This is the first year that SMMPA has been required to file a resource plan with the Commission. As indicated, there is a good deal more substance to the resource plan filing

process than the Agency possibly was aware. This Order should serve to clarify the Commission's expectations of a resource plan filing.

While it is the utility's responsibility to complete its resource plan as detailed in Commission rules, the Commission and Department staff stand ready to work with the Agency to see that the Agency gets the most planning benefit possible from its efforts.

The Commission looks forward to SMMPA's progress in resource planning. The formal resource planning process envisioned by the legislature holds substantial promise of promoting prudent energy resource decisions. The Commission is confident that the Agency will find that its efforts in this regard will be rewarded.

Finally, this Order contains several directives to the Agency and several recommendations. The Agency will be required to comply with the directives and should consider seriously the recommendations. In the Ordering Paragraphs to follow, the directives are indicated by the word "shall" and the recommendations by the word "should".

### **ORDER**

1. Southern Minnesota Municipal Power Agency (SMMPA or the Agency) shall file its next integrated resource plan with the Commission on July 1, 1996.
2. With respect to forecasting, SMMPA shall
  - a) comply fully in its next resource plan filing with the forecasting requirements of Minnesota Rules, part 7843.0400;
  - b) strongly consider the forecasting recommendations as described in the Department's March 29, 1994 comments and previously in this Order;
  - c) provide reasons in its next resource plan for rejecting any of the forecasting recommendations described in the Department's comments and in these briefing papers; and
  - d) initiate discussions with the Department and Commission staff, as necessary, as an aid in understanding and/or implementing recommendations a-c above.
3. With respect to supply-side issues, SMMPA's next Resource Plan SMMPA should include the following:
  - a) a complete analysis of the potential for capacity exchanges;
  - b) an analysis of the potential for cost-effective cogeneration in its member's service territory; and
  - c) an analysis of purchased power supply options available through MAPP.
4. With respect to demand-side issues, SMMPA should include the following modifications in its DSM analysis:
  - a) conduct additional end-use research to obtain a comprehensive understanding of the Agency's DSM potential;
  - b) include a market-penetration study and an explanation of assumptions made in conducting the study;

- c) account for externalities in determining whether DSM options are cost-effective; and
- 5. Also in connection with demand-side issues, the Agency shall include in its next resource plan, a status report concerning member adoption of its DSM program, as well as a detailed description of the efforts provided by the Agency in marketing and assisting with the implementation of these programs.
- 6. With respect to integration of supply- and demand-side resource options, SMMPA should work with the Department to develop an integrated approach to resource planning.
- 7. With respect to contingency planning, SMMPA should consider the following contingency scenarios and shall report on them in its next resource plan SMMPA:
  - a) failure of the member unit upgrades to achieve planned capacity;
  - b) the effects of weather in its sensitivity analysis of the forecast; and
  - c) the effects on capacity needs under various DSM achievement scenarios (e.g. 70 and 85 percent).
- 8. With respect to social costing, in its next resource plan SMMPA
  - a) shall use the interim values for emissions established by the Commission unless final values are determined before SMMPA's next RP filing;
  - b) shall provide the cost estimates of resource options at the three levels required in the March 1, 1994 Order;
  - c) should use a social cost approach when determining the most appropriate mix of resources;
  - d) should discuss the impact of the Clean Air Act on the Agency's (and its members') generation sources and on the need for developing an allowance trading strategy.

9. With respect to rate design, SMMPA should provide the following information in its next resource plan:
  - a) a discussion on the progress of implementing cost-based rates;
  - b) a discussion on the details of the design and implementation of the Agency's interruptible rates, including its potential impact on the Agency's future resource needs;
  - c) a discussion of the potential of and feasibility of implementing TOD rates to its members and an analysis on the administrative feasibility of assisting its members in developing end-user time of day (TOD) rates and the potential impact on the Agency's future resource needs; emphasizing evaluation of TOD rates over implementation; and
  - d) an analysis of how the Agency's costs fluctuate seasonally and a discussion on the administrative feasibility of implementing seasonally adjusted rates.
10. If the Agency declines to adopt any recommendation made in this Order, it shall provide a detailed explanation supporting its decision in its next resource plan filing.
11. On July 1, 1995, the Agency shall submit a report regarding its progress in preparing its next integrated resource plan consistent with this Order.
12. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar  
Executive Secretary

(S E A L)